

# Global HIT (HJT) Solar Cell Market Size Study, by Type (Monofacial Cell, Bifacial Cell), by Application (PV Power Station, Commercial, Residential) and Regional Forecasts 2022-2032

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## **Abstracts**

The Global HIT (HJT) Solar Cell Market is valued at approximately USD 1.41 billion in 2022 and is anticipated to grow with a remarkable growth rate of 17.7% over the forecast period 2023-2032. Heterojunction with Intrinsic Thin-layer (HIT) solar cells are a type of photovoltaic technology that combines multiple layers of different semiconductor materials to enhance the efficiency of converting sunlight into electricity. The unique heterojunction design of these cells allows for more efficient charge carrier collection and reduces recombination losses, resulting in higher conversion efficiencies and better performance, especially under low light conditions, compared to traditional crystalline silicon solar cells.

The HIT (HJT) Solar Cell Market is driven by the cells' high conversion efficiencies, often exceeding 22%, due to their distinctive structure that merges crystalline silicon with thin-film technologies. This efficiency is a crucial factor in solar energy production, making HIT (HJT) solar cells highly attractive. Furthermore, these cells exhibit superior performance in high-temperature environments, a significant advantage in regions with hot climates. The lower temperature coefficient of HIT (HJT) solar cells ensures that their efficiency decreases less under hot conditions compared to conventional silicon cells, maintaining higher performance levels during peak sunlight and summer months. Despite the decreasing cost of solar technology over the years, the initial investment remains substantial for both manufacturers and consumers. The high production costs can limit market penetration, particularly in regions where traditional energy sources are relatively inexpensive. The manufacturing of solar cells involves complex processes requiring specialized equipment and skilled labor, adding to production expenses.



However, advancements in materials science and manufacturing processes are expected to lower the production costs of HIT cells, making them more economically viable compared to traditional solar cell technologies. This reduction in costs, combined with the higher efficiency of HIT cells, will enhance their competitiveness in the solar industry, leading to increased market share and opening new opportunities for deployment in various applications beyond traditional solar PV installations. The key regions considered for the Global HIT (HJT) Solar Cell Market study include Asia Pacific, North America, Europe, Latin America, and Middle East and Africa. In 2023, Asia-Pacific led the global HIT Solar Cell Market. The region's rapid economic growth and urbanization have resulted in a surging demand for energy, with solar energy emerging as a sustainable and renewable solution to meet this need. The declining costs of solar photovoltaic (PV) technology, driven by technological advancements, economies of scale, and manufacturing efficiencies, have made solar energy increasingly competitive with traditional energy sources. This cost reduction has enhanced the accessibility of solar cells for consumers and businesses throughout the region. Additionally, growing awareness of climate change and environmental degradation has heightened the focus on clean and renewable energy sources. Solar energy, which emits no greenhouse gases during operation, aligns perfectly with the sustainability goals of many countries in Asia-Pacific, further boosting the adoption of HIT solar cells. On the other hand, North America is projected to register fastest growth in the forecast period 2024-2032.

Major market players included in this report are:

REC

GS-Solar

Jinergy

HuaSun

Akcome

TW Solar

Canadian Solar

Risen Energy

Enel (3SUN)

Meyer Burger

Panasonic Corporation

**Sharp Corporation** 

LG Electronics

Trina Solar

LONGi Solar



The detailed segments and sub-segment of the market are explained below: By Type: Monofacial Cell Bifacial Cell
By Application: PV Power Station Commercial Residential
By Region: North America U.S. Canada
Europe UK Germany France Italy Spain Rest of Europe
Asia Pacific China Japan India South Korea Australia Rest of Asia-Pacific
Latin America Brazil Mexico LAMEA

Middle East Saudi Arabia



South Africa
Rest of Middle East and Africa

Years considered for the study are as follows: Historical year – 2022 Base year – 2023 Forecast period – 2024 to 2032

## Key Takeaways:

Market Estimates & Forecast for 10 years from 2022 to 2032.

Annualized revenues and regional level analysis for each market segment.

Detailed analysis of geographical landscape with Country level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.



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